

REMARKS

Favorable reconsideration of this application in the light of the claim amendments and the following remarks is respectfully requested. Claims 11 to 19 are pending in this application.

Rejection under 35 U.S.C. §102(b)

Claims 11 to 13, 16 and 17 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5731516 (Handfield et al., hereinafter Handfield).

Claim 11 has been amended only to clarify the distinguishing features of the present invention. In particular, it is now clear that signals are wirelessly transmitted and received by the transmitter and receiver respectively of the transponder unit. We submit that these amendments do not raise new issues.

Paragraph 2 of the Office Action asserts that Handfield teaches “a transponder (22) receiving generated wireless signals from sensors (28, 30) from antenna (38)”. We submit that this assertion has completely misinterpreted the teaching of Handfield.

Figure 1 of Handfield clearly shows a unit (22) in which a transmitter (34) receives wired signals from sensors (28, 30). This wired arrangement is confirmed by Figure 4, which shows a wire connection (148) between a pressure sensor (156) and a detector/transmitter circuit (147) of the unit. Meanwhile, antenna (38) is part of a separate receiver unit (24) receiving wireless signals from the antenna (36) of the unit (22).

Accordingly, we submit that claim 11 is not anticipated by a correctly interpreted Handfield, since Handfield simply does not disclose a transponder unit having both a receiver for wirelessly receiving signals from remote pressure sensors and a transmitter for wirelessly transmitting signals to a remote receiver, as required by claim 11. Claims 12, 13, 16 and 17 depend on and incorporate independent claim 11, and are allowable for the same reason as discussed above with regard to claim 11, and are further allowable in view of the additional limitations set forth therein.

Rejections under 35 U.S.C. §103(a)

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Handfield. Claims 15, 18 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Handfield in view of WO 96/15919 (McClelland). Claim 18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Handfield and McClelland, and further in view of U.S. Patent No. 5,513,524 (Rosenfield).

Claims 14, 15, 18 and 19 depend on and incorporate independent claim 11, which provides a transponder unit for use in a remote tire pressure monitoring system. The transponder has a receiver for wirelessly receiving signals from remote pressure sensors and a transmitter for wirelessly transmitting signals to a remote receiver, as described above. The transponder therefore acts as an intermediate for a remote pressure sensors and a remote receiver, in terms of the flow of data signals.

None of the above-cited prior art documents disclose or suggest an arrangement having an intermediate transponder, as required by the present claims. Further, we submit that a person of ordinary skill in the art would have no motivation to consider such an arrangement because transmitter/receiver applications do not usually have intermediate transponders. It is therefore respectfully submitted that claims 14, 15, 18 and 19 would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Examiner's Response to Arguments

In the Office Action, the Examiner rejects the Applicant's argument that the transponder unit of claim 11 allows "a remote receiver in a vehicle cab to distinguish between wireless signals from the remote pressure sensors of an attached vehicle trailer and other pressure sensors without the need for individual registration of each pressure sensor every time the vehicle trailer is changed".

In prior art systems, a pressure sensor/transmitter unit is connected to each tire of each trailer and a receiver unit having a display is provided in each cab, or tractor. The pressure sensor/transmitter units associated with each tire of a trailer must be "registered" by the receiver unit in a connected cab before the system can be used. This registration

process is required to ensure that the receiver unit in the cab only monitors signals from the tires of the associated trailer, and not those of unconnected proximate trailers. The registration process can be time consuming if trailers have several tires, and is especially inconvenient if trailers are frequently changed.

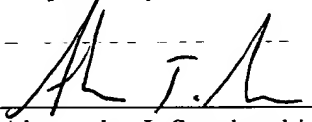
According to the present invention, the transponder unit of claim 11 may be provided on a trailer. Pressure sensor/transmitter units associated with each tire of the trailer are then registered by the transponder unit. The transponder unit is then registered by a receiver unit in a connected cab. However, according to a use of the present invention, when the trailer is changed it is not necessary to reregister the pressure sensor/transmitter units associated with each tire of the new trailer. Instead, it is only necessary to reregister the transponder unit provided on the new trailer.

Accordingly, the transponder unit of claim 11 leads to significant efficiencies in operating a tire pressure monitoring system for a trailer.

For the reasons set forth above, it is submitted that all pending claims are now in condition for allowance. Reconsideration of the amended claims and a notice of allowance are therefore requested. If any extension is required, applicant hereby petitions for same and requests that any extension or other fee required may be charged to deposit account number 19-4972. The Examiner is requested to telephone the undersigned if any matters remain outstanding so that they may be resolved expeditiously.

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Respectfully submitted,



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